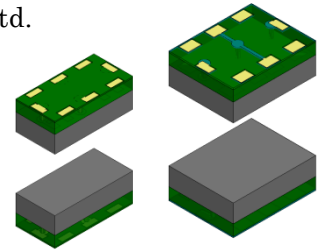


CDC/CDD Type Preliminary Specifications

1. Feature

- Small, Pin Compatible with LDH31&32 Series of Murata Manufacturing Co. Ltd.
- Suitable for Delay up to 1/4 Clock Cycle
- High Reliability Design Applying Semiconductor Packaging Process.
- Optional Impedance and Delay Time requests can be accommodated.



CDC Type
(1206 Size)
CDD Type
(1210 Size)

2. Preliminary Specifications

2-1 Common Specifications

- Waveform Distortion : Overshoot/Preshoot Under 20 %
- Delay Time Temperature Coefficient : 0 to +300 ppm/°C
- Insulation Resistance : DC 50 V, Over 100 MΩ
- Durable Voltage : DC 50 V, 1 Minute
- Operating Temperature Range : -40 °C to +125 °C
- Storage Temperature Range : -40 °C to +125 °C

2-2 Specifications for Standard Part

Impedance: 50 Ω ± 10 %

Part Number	Delay Time	Rise Time (20%-80%)	-3dB Pass band (1)	DC Resistance	Rated Current
CDC1005	1.0 ns ± 0.15 ns	0.35 ns Typ.	DC ~ 1100 MHz Typ.	2.5 Ω Typ.	60 mA
CDC1505	1.5 ns ± 0.23 ns	0.55 ns Typ.	DC ~ 750 MHz Typ.	3.0 Ω Typ.	60 mA
CDC1805	1.8 ns ± 0.27 ns	0.65 ns Typ.	DC ~ 520 MHz Typ.	6.5 Ω Typ.	60 mA
CDC2005	2.0 ns ± 0.3 ns	0.75 ns Typ.	DC ~ 500 MHz Typ.	5.5 Ω Typ.	60 mA
CDC3005	3.0 ns ± 0.45 ns	1.1 ns Typ.	DC ~ 350 MHz Typ.	8.5 Ω Typ.	60 mA
CDC4005	4.0 ns ± 0.6 ns	1.4 ns Typ.	DC ~ 250 MHz Typ.	10 Ω Typ.	60 mA
CDC5005	5.0 ns ± 0.75 ns	1.8 ns Typ.	DC ~ 200 MHz Typ.	11 Ω Typ.	60 mA
CDD1005	1.0 ns ± 0.15 ns	0.40 ns Typ.	DC ~ 1100 MHz Typ.	1.0 Ω Typ.	60 mA
CDD1505	1.5 ns ± 0.23 ns	0.55 ns Typ.	DC ~ 700 MHz Typ.	1.5 Ω Typ.	60 mA
CDD2005	2.0 ns ± 0.3 ns	0.75 ns Typ.	DC ~ 500 MHz Typ.	1.5 Ω Typ.	60 mA
CDD2505	2.5 ns ± 0.38 ns	0.85 ns Typ.	DC ~ 400 MHz Typ.	1.7 Ω Typ.	60 mA
CDD3005	3.0 ns ± 0.45 ns	1.1 ns Typ.	DC ~ 350 MHz Typ.	2.0 Ω Typ.	60 mA
CDD4005	4.0 ns ± 0.6 ns	1.4 ns Typ.	DC ~ 250 MHz Typ.	3.0 Ω Typ.	60 mA
CDD5005	5.0 ns ± 0.75 ns	1.8 ns Typ.	DC ~ 200 MHz Typ.	2.5 Ω Typ.	60 mA
CDD6005	6.0 ns ± 0.9 ns	2.2 ns Typ.	DC ~ 150 MHz Typ.	3.0 Ω Typ.	60 mA
CDD8005	8.0 ns ± 1.2 ns	2.7 ns Typ.	DC ~ 120 MHz Typ.	3.5 Ω Typ.	60 mA
CDD10005	10.0 ns ± 1.5 ns	3.2 ns Typ.	DC ~ 90 MHz Typ.	3.5 Ω Typ.	60 mA
CDD12005	12.0 ns ± 1.8 ns	4.3 ns Typ.	DC ~ 75 MHz Typ.	3.5 Ω Typ.	60 mA
CDD15005	15.0 ns ± 2.25 ns	5.3 ns Typ.	DC ~ 60 MHz Typ.	8.0 Ω Typ.	60 mA

(1) It is defined as the frequency which is added 3 dB loss from DC loss.

Suggested Replacement from LDH Series

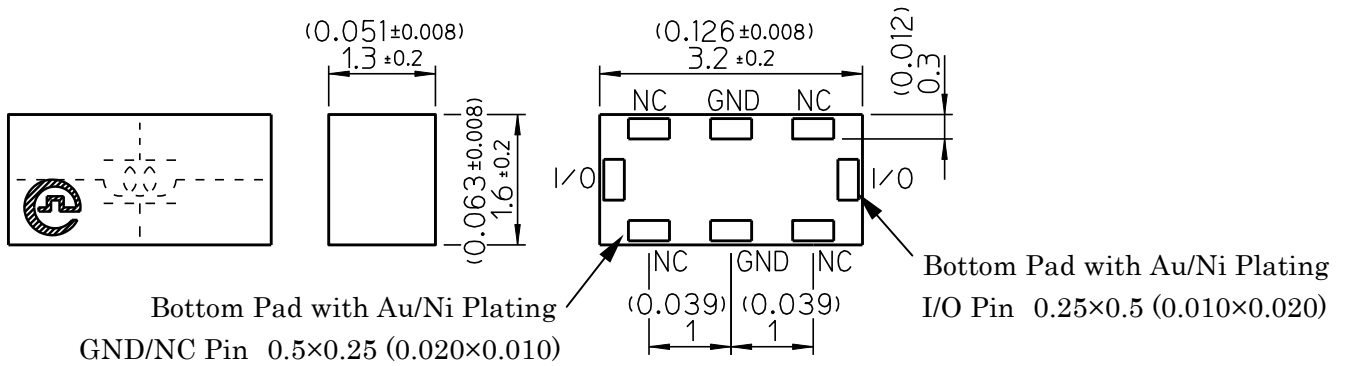
LDH Series Part Number	Delay time	Size	Replacement Part Number
LDH311N00LAC-810	1.0 ns	1206	CDC1005
LDH311N50LAC-810	1.5 ns	1206	CDC1505
LDH312N00LAC-810	2.0 ns	1206	CDC2005
LDH321N00LAC-800	1.0 ns	1210	CDD1005
LDH321N50LAC-800	1.5 ns	1210	CDD1505
LDH322N00LAC-800	2.0 ns	1210	CDD2005
LDH322N50LAC-800	2.5 ns	1210	CDD2505
LDH323N00LAC-800	3.0 ns	1210	CDD3005

3. Package Dimensions & Pin Configuration

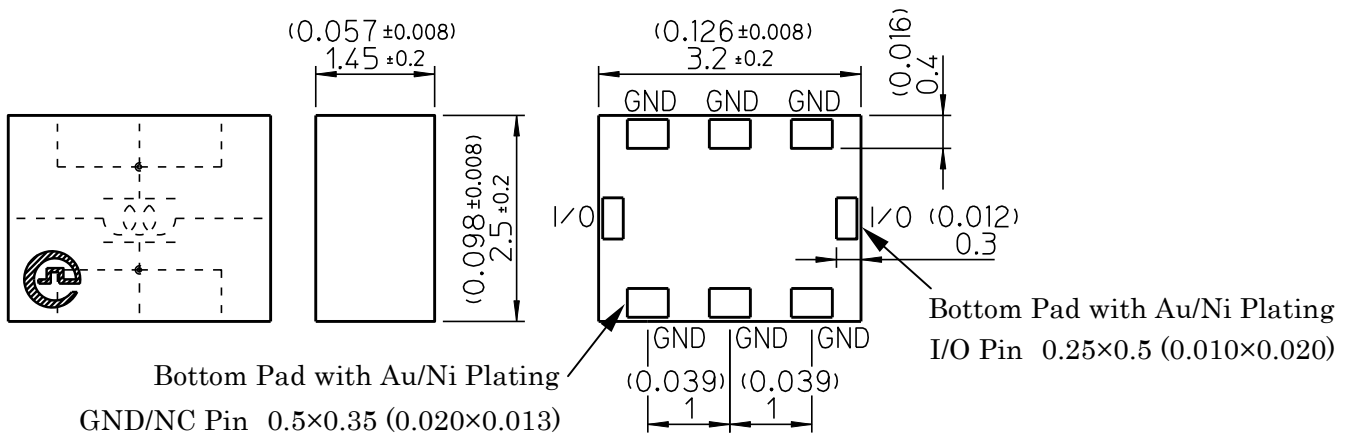
Unit: mm (inch)

Tolerance: ±0.1(±0.004)

3-1 CDC Type



3-2 CDD Type

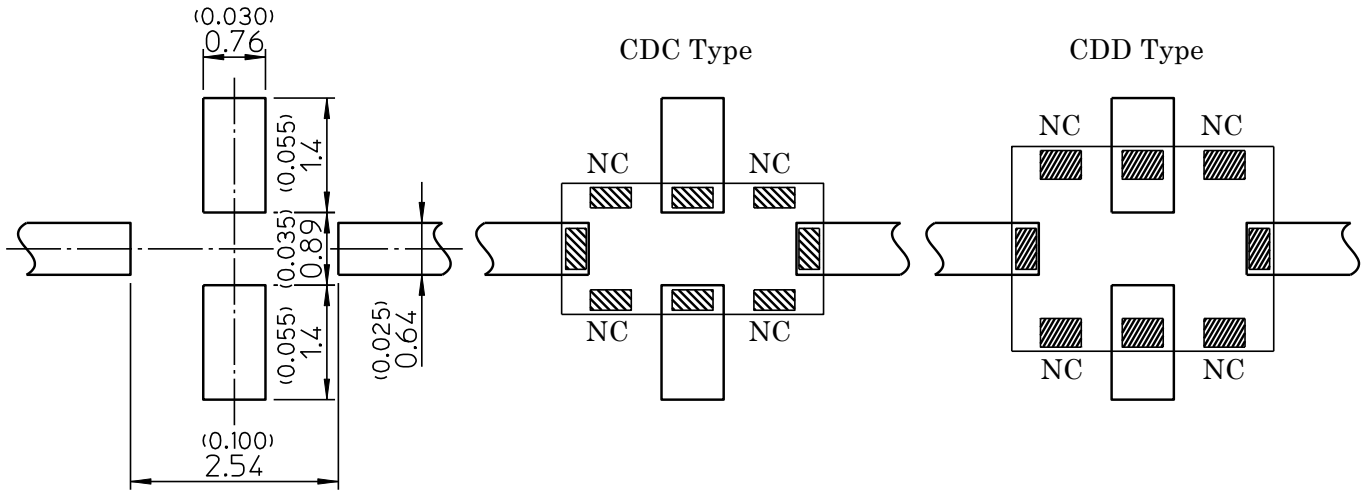


4. Suggested Land

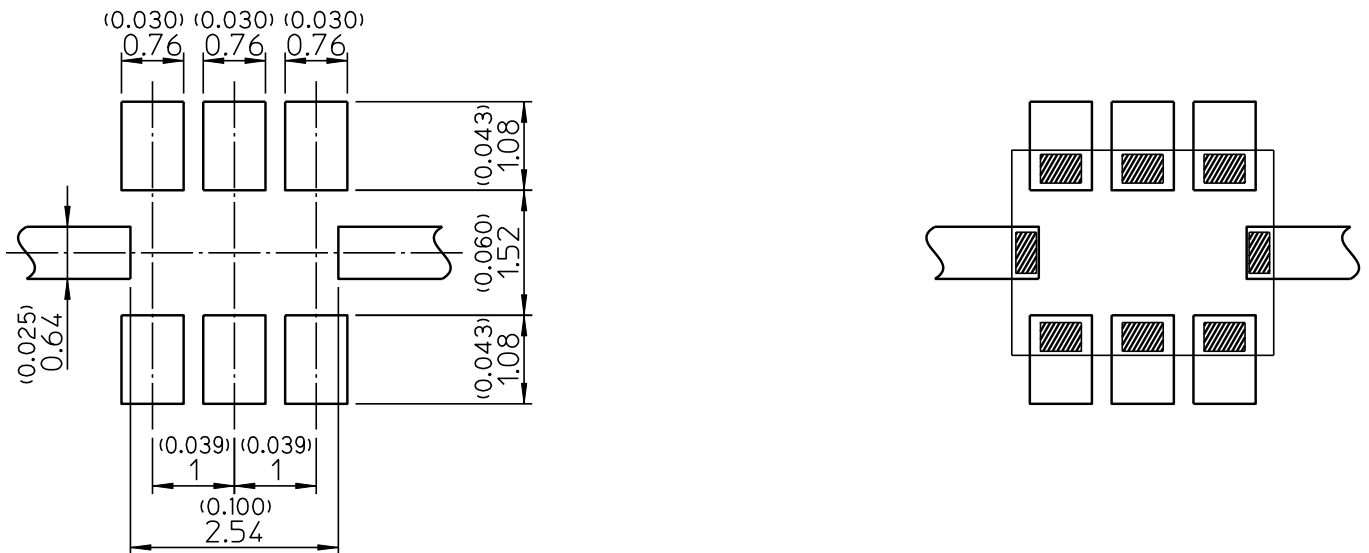
Unit: mm (inch)

Tolerance: $\pm 0.1(\pm 0.004)$

4-1 CDC/CDD Common Land

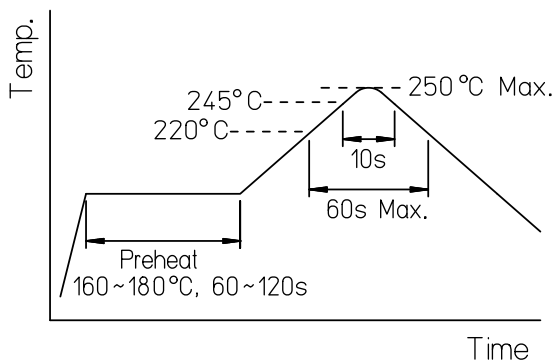


4-2 CDD Land



5. Reflow Soldering Conditions (Provisional)

Max Reflow: $\times 2$



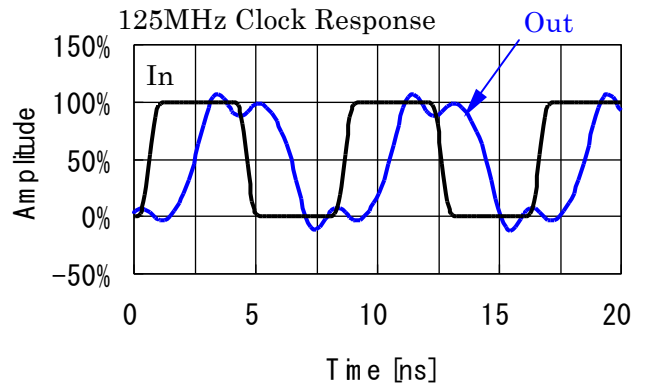
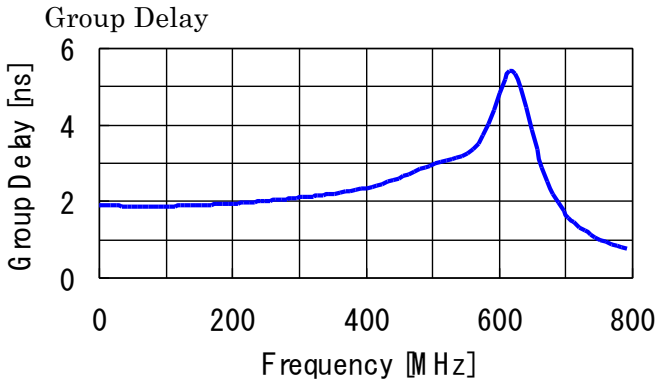
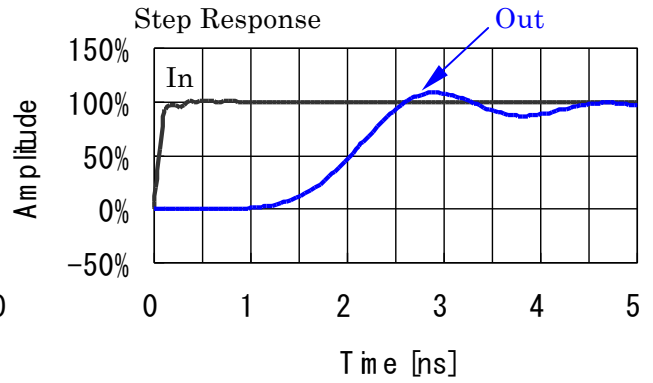
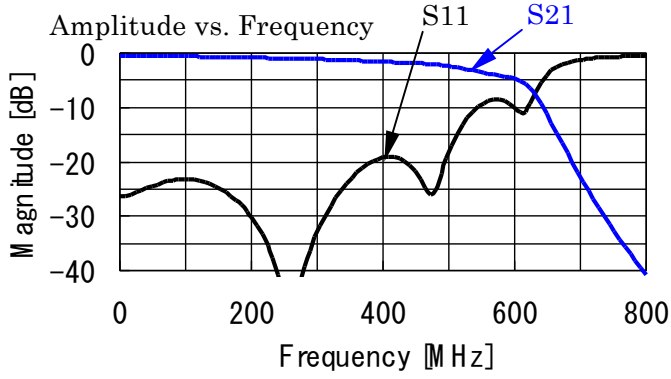
MSL3 (Provisional)

Baking Conditions where Floor Life exceeded
80□ for 100 hours or 120□ for 24 hours

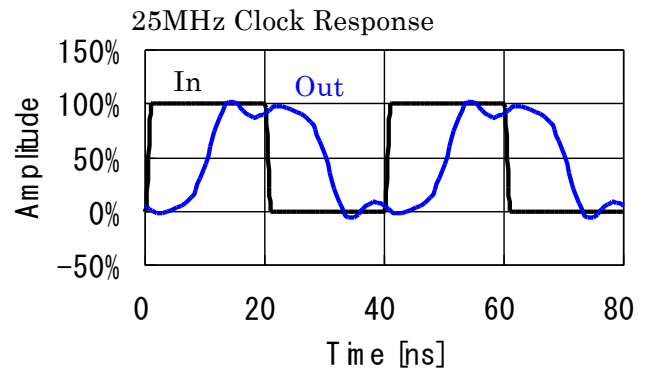
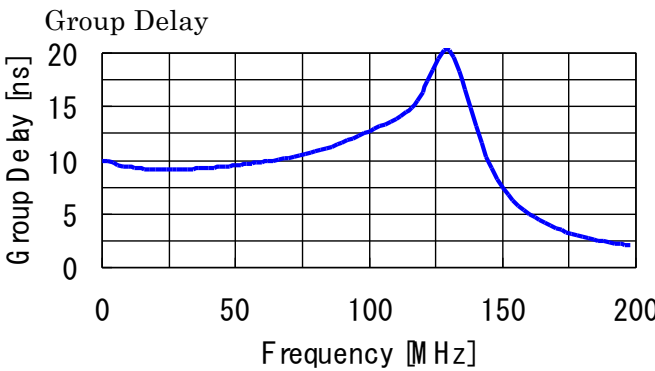
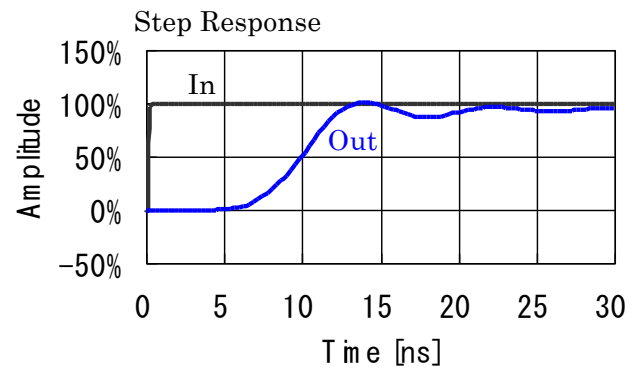
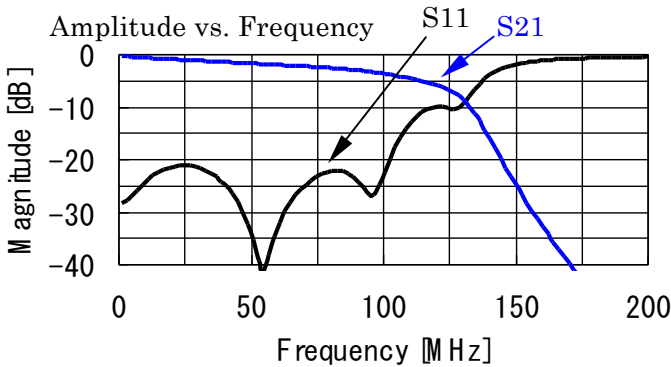
Please transfer to tray(s) or in bulk for baking process.

6. Characteristics

CDC2005



CDD10005



7. Time Schedule

Sample : 2Q-2016

Production : 3Q-2016